



Patent
Attorney's Docket No. 032796-019

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)	
John P. Carulli et al.)	Group Art Unit: 1635
Application No.: 09/578,900)	Examiner: Jon E. Angell, Ph.D.
Filed: May 26, 2000)	Confirmation No.: 8399
For: HIGH BONE MASS GENE)	
OF 11Q13.3)	

REPLY PURSUANT TO 37 C.F.R. § 1.114

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Reply responds to the Final Office Action mailed November 26, 2003 and the Examiner's Answer mailed September 21, 2004. The Reply is filed pursuant to the provisions of 37 C.F.R. § 1.114. As a Reply Brief would have been due November 22, 2004 (November 21, 2004 is a Sunday), submission of this Reply is timely.

This Reply is filed to address arguments raised in the Examiner's Answer and Final Office Action with submission of additional art in support of Applicants' position. The response is timely as it occurs before the events in 37 C.F.R. § 1.114 (a) and after close of prosecution pursuant to § 1.114 (b). The required fee under 37 C.F.R. § 1.17(e) is also submitted herewith.

I. INTRODUCTION

The disclosure of the subject application relates to the *HBM* gene, the *Zmax1* gene, as well as the corresponding HBM and Zmax1 proteins. The *Zmax1* gene is a wild-type gene. The literature today refers to wild-type allelic variants as *Lrp5*. *Zmax1* encodes a protein in the LDL receptor family. Specification description of Figure 4. An allelic variant of Zmax1 containing a polymorphism that results in a one amino acid change (*i.e.*, glycine to valine at